United States Department of Agriculture
Natural Resources Conservation Service

Energy and Air Quality Considerations for Conservation Planning

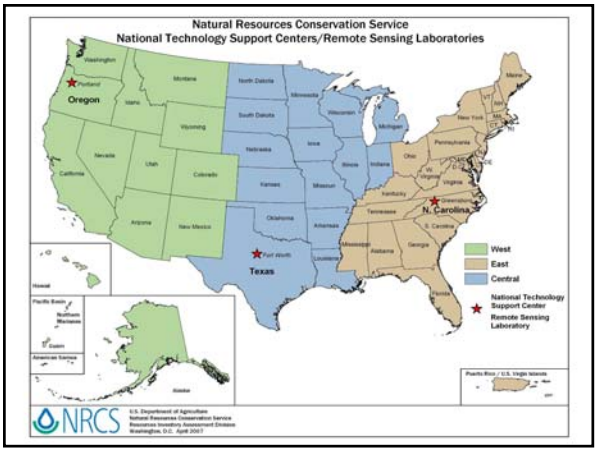
Presented by the Air Quality & Atmospheric Change and Energy Technology Development Teams
West National Technology Support Center
Portland Oregon

Who We Are

- Energy Team:
  - Stefanie Aschmann, Leader
  - Stan Hitt, Physical Scientist
- Air Quality & Atmospheric Change Team:
  - Greg Johnson, Leader
  - Susan O'Neill, Air Quality Scientist
  - Roel Vining, Air Quality Scientist
  - Greg Zwicke, Air Quality Engineer

National Technology Development Teams

- 3 at each NTSC
  - Portland: AQAC, Energy, Water Quantity and Quality
  - Ft. Worth: Grazinglands, Wildlife, Wetlands
  - Greensboro: Manure Management, Social Sciences, Soil Quality
- 2 Main Purposes:
  - To provide technological direct assistance and technology transfer
  - To acquire and/or develop new science and technology in order to provide cutting-edge technological support



Why a Course on Energy and Air?

- We tend to stovepipe resource analyses
- Energy and air – how are they related?
- Where is the overlap?
- How do energy and air relate to the rest of SWAPA?

Agenda

- Monday June 16
  - Welcome, Introductions, Pre-Test
  - Why Do We Care about Air Quality and Energy?
  - Why We Care About Energy
  - Energy Basics
  - Energy Life Cycle Examples
  - Energy and Air Quality Issues in Oregon
  - Air Basics: Why We Care, and AQ Regulations

Agenda

- Tuesday June 17
  - Energy Efficiency and Use in Agriculture
  - Saving Energy
  - Animal Housing Tool Demo
  - RUSLE2 Demo
  - Case Studies—Round 1 (Energy Issues)
  - Air Quality and Atmospheric Change (AQAC) Resource Concerns
  - Integrating AQAC into NRCS Practices, Activities and Programs
  - Airshed Assessments
  - AQAC Assessments: Applying it Locally
  - Greenhouse Gases, Climate Change, Carbon Sequestration and Credit Trading
  - Case Studies—Round 2 (AQAC Issues)

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Agenda

- Wednesday, June 18: Field Tour
  - Sherman County: Wind Farm
  - Wasco County:
    - Bioenergy and Dust Control
    - Orchard AQ and Energy Issues
  - Hood River County:
    - Spray Drift Management
    - Irrigation
    - Frost Protection
    - Orchard prunings--grinding vs. burning
    - Orchard energy savings

NRCS

Agenda

- Thursday June 19
  - NRCS Programs and Energy
  - Renewable Energy
  - AQAC and Energy Interactions
  - Case Studies--Joint AQAC and Energy Examination
  - Case Study #1 Group Reports
  - Case Study #2 Group Reports
  - Case Study #3 Group Reports
  - Case Study #4 Group Reports
  - Post-Test
  - Debrief and Summarize
  - Course Evaluation

NRCS

GOALS

- *Better understanding of basic information and issues regarding both AQAC and Energy, in relationship to agricultural production and NRCS conservation activities*
- *Ability to assess both AQAC and Energy issues on a farm and develop appropriate strategies for addressing these*

NRCS

Expectations

- Be engaged!
- Interactive. Ask Questions.
- Take notes!
- Review electronic and other materials.
- Give us feedback!
- Look for win-win opportunities
- Share your experiences
- Have fun!

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